



Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

DOGM
MINERALS PROGRAM
FILE COPY

October 4, 1989

Mr. John Vanderpool
Senior Geologist
Umetco Minerals, Incorporated
P.O. Box 307
LaSal, Utah 84530

Dear Mr. Vanderpool:

Re: Surety Estimate, Pandora Mine, M/037/012, San Juan County, Utah

The Division has developed a new surety estimate for your Pandora mine site. Please find all pertinent information enclosed with this letter.

The estimate comes to \$65,400, in 1994 dollars. It includes the \$8,500 estimate developed by the Forest Service for their vent hole reclamation. The site has a total of 9 vent holes. I have included only 8 vent holes in the DOGM surety estimate, so there should be no overlap in bonding. Also, you will find that I have excluded road reclamation, grading, revegetation and power line reclamation from the DOGM estimate where they have been included in the Forest Service estimate.

You will find that we have reduced some of our figures based on my conversation with you at the mine, on August 11, 1989. These figures, unless Umetco or the Forest Service are able to find some gross error, will be final.

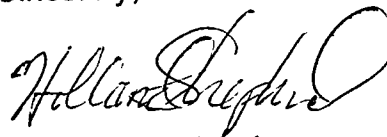
We will eventually need a new Reclamation Contract and form of surety. These will have to be presented to our Board for approval. I have enclosed your old Reclamation Contract, for your use and update. I don't anticipate final approval until the end of November. I will need to have the Reclamation Contract and form of surety by the first week of November, 1989.

Page 2
John Vanderpool
Umetco Minerals Inc.
M/037/012
October 4, 1989

The surety for the Velvet and Rim-Columbus will remain the same. I need to have your Reclamation Contract signed, for these sites, and returned to you. The surety for the Calliham will probably change. We have not looked at this yet, but intend to finish it this fall. As you remember, the acreage has been changed from 10 acres to 16 acres.

Please call me if you have questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Holland Shepherd".

Holland Shepherd
Reclamation Specialist/Permit Lead

jb
Enclosures
cc: Deborah Johnson, Moab Ranger District
Lowell Braxton
MN5/145-146

Reclamation Estimate for Umetco Minerals Corporation
Pandora Mine San Juan County M/037/012

Prepared By Utah State Division of Oil, Gas and Mining
June 2, 1989 Revised 10-02-89

Description	Quantity	Unit	\$/Unit	Cost (\$)
On-Site Facilities Reclamation				
Demolish and Dispose of Buildings (a)				
Dispose of Water Tank (a)				
Construct Bulkhead Inside Portal		Lump Sum		1,200
Backfill Portal to Bulkhead		Lump Sum		600
Remove Powerlines and Poles	2,000	Linear Feet	2.00	4,000
Remove Transformers		Lump Sum		500
Remove Trash	3.6	Acres	100	360
Rip Roads	0.7	Acres	175	120
Grade for Uniformity	3.6	Acres	430	1,550
Revegetate	3.6	Acres	447	1,610

Subtotal				9,940
Off-Site Facilities Reclamation				
Backfill Vent Holes with Rip-Rap	8	Each	300	2,400
Install 5' Concrete Cap in Vent Holes	40	Cubic Yards	120	4,800
Remove Powerlines and Poles	4,000	Linear Feet	2.00	8,000
Remove Trash	2.4	Acres	20	50
Rip Roads	1.0	Acres	175	180
Grade for Uniformity	1.0	Acres	430	430
Revegetate	1.0	Acres	447	450

Subtotal				16,310
Waste Dump Reclamation				
Remove Trash	5.3	Acres	100	530
Grade to a 30 degree Slope	14,300	Cubic Yards	0.80	11,440
Revegetate	5.3	Acres	447	2,370

Subtotal				14,340
Ore Pad Reclamation				
Remove Trash	1.8	Acres	100	180
Grade to a 30 degree Slope	5,000	Cubic Yards	0.80	4,000
Revegetate	1.8	Acres	447	800

Subtotal				4,980
Forest Service Surety Estimate (see attached) (b)				8,500
				=====
Totals				54,070
Add Contingency (10%)				5,410

TOTAL RECLAMATION COST (1989 Dollars)				59,480
TOTAL RECLAMATION COST (1994 Dollars) @ 1.93% Annual Inflation				65,400

Reclamation Estimate for Umetco Minerals Corporation
Pandora Mine San Juan County M/037/012

Prepared By Utah State Division of Oil, Gas and Mining
June 2, 1989 Revised 10-02-89

Cost Parameters Used

D-8 Dozer (O&O)	160	\$/hour
988B Wheel Loader (O&O)	165	\$/hour
Labor Only	24	\$/hour
Trash Removal	100	\$/acre
Farm Tractor (O&O)	67	\$/hour
Speed	4	mph
Width of Pass	6	feet

Revegetation Cost per Acre	Quantity	Unit	\$/Unit	Total Cost (\$)
Bare Costs				
Fertilizer (18-46-0)	100	Pounds	0.25	25
Seed Mix	20	Pounds	9	180
Native Hay Mulch	2	Tons	50	100
Subtotal				305
Application Costs				
Native Hay Mulch (spread by hand)	3.0	Hours	24	72
Native Hay Mulch (disc into ground)	0.3	Hours	67	23
Fertilizer (broadcast by hand)	0.5	Hours	24	12
Seed Mix (drilled)	0.5	Hours	24	12
Scarify (tractor with chain)	0.3	Hours	67	23
Subtotal				142
Total Revegetation Cost per Acre				447

- Notes: (a) The buildings and water tank have salvage values that will exceed removal cost.
- (b) The Forest Service Surety Estimate is for 1 of 9 vent holes, and associated disturbance. Only 8 vent holes have been calculated into the DOGM figures.

**U.S. Forest Service
Moab Ranger District
September 11, 1989**

**Reclamation Surety Estimate
for
Umetco's Pandora Mine Vent Hole
Located in the
NW 1/4 of section 5, T29S, R25E**

REVISED RECLAMATION EVALUATION WORKSHEET

RECEIVED
SEP 18 1989

Umetco Minerals Corporation
Pandora Mine Vent Hole (1x), MLS4-2810-4/20/89

DIVISION OF
OIL, GAS & MINING

I. Road Work and Erosion Control	\$610
II. Fan and Concrete Pad Removal	\$162
III. Power Line Removal	\$168
IV. Backfilling of Vent Hole (1x)	\$4310
V. Revegetation Costs	\$199
VI. Clean Up	\$1031
VII. Transport	\$594
VIII. Administration	\$1415
Total	\$8489
Rounded for Bonding	\$8500

I. Road Work and Erosion Control

Work will include the installation of waterbars in approximately 1/2 mile of road. All berms will be pulled back across the the road, and all roads will be ripped and seeded.

A. Equipment - Dozer TD20 with ripper	\$75.48/hr
B. Labor Operator	\$11.71/hr
C. Work	

Ripping 2640 lin ft / 6000 ft / hr = 0.44hrs

Waterbars @ 200 ft spacing
2640 ft / 200/bar x 0.5 hr/bar = 6.6 hrs

Use 7 hrs x \$(75.48 + 11.71)/hr = \$610

II. Fan and Concrete Pad Removal

Work will include removal of fan and 14 foot by 14 foot concrete pad.

A. Equipment - Loader one hour to break up and load Truck to haul away waste to vent hole already paid in vents	
B. Labor - 2 labors @ \$7.02/hr for one day pickup for transportation	

C. Work labor 2 ea x 8hrs x \$7.02 = \$112
 loader 1hr x (\$37.86 + 11.71)/hr = \$50

sub total = \$162

III. Power Line Removal

Work will include removing power lines and poles. All holes will be backfilled and covered with top soil.

A. Equipment - Backhoe 510B \$22.65/hr

B. Labor - Operator \$11.71/hr
 Labor \$ 7.02/hr

C. Work
 1/2hr per pole
 1/2 hr \$(22.65 + 11.71 + 7.02)/hr = \$21/pole
 8 poles x \$21/pole = \$168

IV. Backfilling of Vent Holes

Work will include backfilling the vent hole. The bottom of the vent hole will be backfilled with rip-rap covered with fines and an 5 foot slurry cement plug. Waste rock will then be backfilled on top of the plug to within 10 feet of the ground surface. Another 5 foot concrete plug will be placed to within 2 feet of the ground surface and the remainder will be covered with top soil.

A. Transportation

B. Equipment - Dump trucks (10yds) \$32.33/hr
 Loader (2-1/2yds) \$38.45/hr
 Backhoe (15-6 depth) \$22.65/hr

C. Labor - Drivers \$10.12/hr
 Loader operator \$11.71
 Backhoe operator \$11.71

D. Time - One 10 hour day for a loader, backhoe, and 4 dump trucks

Loader 10 hrs x (\$38.45 + \$11.71)/hr / 611 yds = \$.82/yd

Dump trucks 4 ea x 10hrx(\$32.33+10.12)/hr / 611yds x (3mi)mi = \$.93/ yd mi

E. Work

Rip-rap

$$\begin{aligned} \text{Volume} &= h \times \pi \times r \times r / 3 \\ &= \{8\text{ft} + 6\text{ft} / 2 \times \tan 34\} \times 3.14 \times \\ &\quad \{[2 \times 8\text{ft} / \tan 34 + 6 \text{ft}] / 2\}^2 \end{aligned}$$

B. Labor: (1 day) 2 laborers x 8 hrs x \$/.02 = \$112

C. Transportation: 1 round trips @ 70 miles
pickup @ \$6.51 hr and \$0.16/mi
8 hrs x \$6.51/hr + 70 mi x \$0.16/mi = \$63

sub total \$199

VI. Clean Up

Work will include removal of all equipment and trash.

A. Labor: (2 days) 2 laborers x 16 hrs x \$7.02 = \$225

B. Transportation: 2 round trips @ 70 miles
16 hrs x \$6.52/hr = 2 x 70 mi x \$0.16 = \$127

C. Equipment - Dump truck with driver two days
2 ea x 8 hr x \$(32.33 + 10.12)/hr = \$679

sub total \$1031

VII. Transport

Dozer, Loader and Backhoe one 66 mile round trip each
3 trip x 66 mile x \$1.00/ mile = \$594

VIII. Administration

20 % of \$7074 = \$1415